REMARKS/ARGUMENTS

Reconsideration of this application and entry of the foregoing amendments are respectfully requested.

Claim 31 has been revised to define the invention with additional clarity. Support for the claim as presented is found throughout the application. Claim 32 has been cancelled without prejudice. That claims have been amended/cancelled should not be taken as an indication that Applicants agree with any view expressed by the Examiner. Rather, the revisions/cancellations are made merely to advance prosecution and Applicants reserve the right to pursue any deleted subject matter in a continuation application.

Claims 31 and 32 stand rejected under 35 USC 101. Withdrawal of the rejection is submitted to be in order in view of the above-noted revision of claim 31 so as to be drawn to an isolated complex comprising a DNA molecule covalently bound to a cis-acting DNA binding protein encoded therein, and further in view of the cancellation of claim 32. Reconsideration is requested.

Claims 31 and 32 stand rejected under 35 USC 102(b) as alleged being anticipated by Liu et al or Applicants' alleged disclosure of know prior art. Withdrawal of the rejection is in order in view of the revision of claim 31 and cancellation of claim 32, and further in view of the comments that follow.

Liu et al relates to the construction of individual plasmids containing P2-A wild type, P2-A (Y450D), P2-A (Y454F) or P2-A (Y450D and Y454F). Each P2-A variant is

cloned in-frame with a His tag. The expressed polypeptides from these constructs form inclusion bodies from which purified P2-A variants are isolated using the His tags to which they are fused. Biochemical studies are then conducted on purified proteins to understand the catalytic mechanism of P2-A. There is no disclosure in Liu et al of the recovery (isolation) of a covalent protein:DNA complex as claimed in claim 31. Only the expressed and purified protein is recovered for biochemical analyses.

As regards the Examiner's reliance on page 10 of the subject application, no basis is seen for the Examiner's assertion that the comments provided there constitute an admission that the subject matter of claim 31 as previously presented (much less the complex of amended claim 31) is anticipated. The Examiner is respectfully requested to withdraw the rejection or clarify the basis for her position so that Applicants will be in a position to respond.

Reconsideration is requested.

Claims 21, 22, 24, 26, 27, 28, 31, 34-36 and 39 stand rejected under 35 USC 102(e) as allegedly being anticipated by Maruyama et al. Withdrawal of the rejection is submitted to be in order for the reasons that follow.

In accordance with the present invention, DNA molecules encoding a *cis*-acting protein (such as P2-A) fused to a display moiety are expressed. The cis activity of the *cis*-acting protein (e.g., P2-A) ensures that the polypeptides produced as a result of that expression bind faithfully and covalently to the DNA sequence that served as the template for expression.

The resulting protein-DNA complexes (that is, the resulting peptide or protein expression library) can be used for affinity selection protocols against a given target in order to identify individual DNA sequences that encode ligands (that is, the "displayed" amino acid sequence) to which the target binds.

In contrast to the present invention, Maruyama et al relates to bacteriophage display technology.[1] In bacteriophage display technology, a protein is expressed such that it is displayed on the phage particle surface. As with any other virus, bacteriophage package phage DNA within the phage particle. Thus, a protein that is displayed on the bacteriophage surface is "associated" with its encoding DNA, which forms part of the DNA that is packaged within the phage particle. It is not, however, covalently bound to its encoding DNA.

The rejection appears to be based on the reference in Maruyama et al to "cis". In the citation, cis is defined as "when the phage genome contains a second cistron for expression of heterosubunits", the cistron being defined as a "[s]equence of nucleotides in a DNA molecule coding for an amino acid residue sequence and including upstream and downstream DNA expression control elements" (see the definitions in column 6 of Maruyama et al). The reference to "cis" in Maruyama et al has nothing whatsoever to do with *cis*-acting proteins of the instant invention.

[1] The Examiner's attention is directed to pages 1 and 2 of the present application where a general description of bacteriophage technology of the type to which Maruyama et al relates is provided. Drawbacks of this technology are also described there.

In contrast to Maruyama et al, the DNA molecule of the present invention comprises a nucleotide sequence encoding a binding moiety comprising an amino acid sequence that is a *cis*-acting DNA binding protein. The *cis*-acting DNA binding protein binds specifically and covalently to the DNA sequence that encodes it. That is, in the present invention, when the *cis*-acting DNA binding protein is expressed, it binds covalently to its own encoding DNA. Nothing in Maruyama et al teaches this type of DNA:protein binding.

In view of the fundamental difference between Maruyama et al and the instant invention, withdrawal of the rejection is clearly in order and same is requested.

Claims 21, 22, 24-29, 31, 32, 34-36, 39 and 40 stand rejected under 35 USC 103 as allegedly being obvious over Murayama et al in view of Liu et al. Withdrawal of the rejection is submitted to be in order for the reasons that follow.

It will be clear from the foregoing comments that the primary reference relates to a technology distinct from that to which the instant invention relates. Nothing in Liu et al would have cured the fundamental failings of Maruyama et al. Furthermore, given the differences between the teachings of Liu et al (detailed above) and those of Maruyama et al, no justification for the combination is seen.

The approach used in Maruyama et al requires the production of phage particles. The use of the protein of Liu et al would be expected to interfere with the ability of bacteriophage proteins to package DNA. Accordingly, no motivation to combine these documents is seen.

Reconsideration is requested.

This application is submitted to be in condition for allowance and a Notice to that effect is requested.

Respectfully submitted,

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